

## ABSTRACT

An apparatus and method for combining light signals carried on a plurality of input fibers onto a single receiving fiber with a high degree of efficiency.

- 5 The apparatus broadly comprises the receiving fiber and a plurality of input fiber-lens assemblies, with each fiber lens assembly including an input fiber; a collimating lens interposed between the input fiber and the receiving fiber and adapted to collimate the light signal; and a focusing lens interposed between the collimating lens and the receiving fiber and adapted to focus the collimated light signal onto the face of the
- 10 receiving fiber. The components of each fiber-lens assembly are oriented along an optic axis that is inclined relative to the receiving fiber, with the inclination angle depending at least in part on the input fiber's numerical aperture and the focal lengths and diameters of the collimating and focusing lenses.

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